

## LOCALLY POWERED WATER DISTILLATION SYSTEM

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### Abstract

A system for distributed utilities including electrical power and water. A generation device is provided for converting an available resource to a desired utility; the resource may be water, in which case the generator is a purifier for purifying untreated  
10 water, or, alternatively, the generator may convert a fuel to electrical power. In either case, an input sensor is provided for measuring input to the generation device, while an output sensor is provided for measuring consumption of output from the generation device. The monitoring system has a controller for concatenating measured input and consumption of output on the basis of the input and output sensors. Measured parameters  
15 are telemetered to a remote site where utility generation and use are monitored and may also be controlled. At least a portion of the electrical power capacity of the electric generation unit may power a water purification unit such as a vapor compression distillation unit, and heat output of the electric generation unit may supply heat to the water purification unit.

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